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California Energy Commission
1516 Ninth Street
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RE: Comments on October 8 and 9, 2012 Staff Workshops and “Comprehensive Energy Efficiency Program for Existing Buildings Scoping Report”

Dear Commissioners:

San Diego Gas & Electric Company (“SDG&E”) and Southern California Gas Company (“SoCalGas”), also referred to as the “Sempra Energy Utilities”, appreciate this opportunity to respond to the California Energy Commission’s (“CEC”) questions related to the CEC’s Staff Report “Comprehensive Energy Efficiency Program for Existing Buildings Scoping Report” and to topics addressed at the October 8 and 9, 2012 workshops.

The Staff Report lays out the role of the California Public Utilities Commission (“CPUC”) and the Publicly Owned Utilities (“POUs”) in the implementation of AB758.¹ The role of the Investor Owned Utilities (“IOUs”) is not clearly articulated. The IOUs have contributed significantly through their administration and stewardship of the various energy efficiency programs over the last 25 years. Much of the achievement in energy efficiency savings and market transformation (e.g., CFLs) has been due in most part from the innovative implementation of IOU programs. The IOUs continue to bring value and leadership towards the implementation of new and continuous program improvement to meet the goals of AB 758. In order to continue to achieve cost effective energy efficiency savings to meet the goals of AB758 and AB32, the IOUs should continue to administer these programs in their service territories under the regulatory oversight of the CPUC.

Much of the Staff Report and the workshop focused on various market players to support market development, e.g., contractors, workforce development. What is markedly missing in these discussions is the voice of the customer. Although a market infrastructure is important, it is critical at this point of the program development phase to solicit customer input (e.g., through surveys, focus groups) as to what program designs they would find attractive, what are their own perceived barriers to participation, etc. It appears that we are reliant on past studies of customer behavior, or contractor, industry input. We then conduct complicated and usually contentious studies of free ridership to ascertain why customers participate in the programs. The Sempra Energy Utilities contend that, in addition to market input, customer input early in the design process and at various stages of program progress will result in more effective program design and increased customer participation. Ultimately the success of these programs lies on customers who are willing to invest their money, time and resources to upgrade their homes and business premise to achieve cost effective energy efficiency.

¹ At pages xv to xvi, 4 to 6.

With the implementation of Smart Meters and the Smart Grid, customer data has become more readily available. The data, when analyzed with the right tools and presented in a clear and understandable format, can arm customers with sufficient information that could result in more than customer behavior change; it would also identify energy efficiency installations resulting in deeper, longer-lasting savings. However, we must all be mindful of the responsibility to protect customer privacy in utilizing this data and therefore work together to develop adequate protection without stymieing innovation in developing customer solutions.

The Sempra Energy Utilities provide their responses to the specific questions identified in the workshop agenda below.

Residential Energy Upgrade Programs

What customers are choosing building performance upgrades today? Where are the opportunities for scaling upgrades?

Response:

- a) The customers that are choosing building performance upgrades today are customers with disposable income. Anecdotal and customer survey evidence suggests that customers who do upgrades do so as part of work already being contemplated by the customer (i.e. home addition and remodeling) or as part of burnout replacement of existing systems.
- b) The opportunities for scaling upgrades include revamping the basic path to a more flexible package for customers and contractors. This would open up the program to the 40% of the housing stock that does not qualify under the current program requirements for central air and heating and it would present an opportunity for HVAC contractors to be part of the program and the HERS II component. Financing mechanisms would help scale up this program through repayment or incentive options. Partnerships with local governments and agencies increase program outreach. Lastly, for SoCalGas having a large municipality be part of the program would help the program thrive in our shared service territory.

What value do building assessments bring to the homeowner and/or contractor? What should be their role in upgrade programs?

Response:

- a) Building assessments provide customers with a pathway to energy efficiency; they validate the scope of work/recommendations that should be completed. The financing program requires assessments in order to receive loans. For resale, having an assessment readily available through the Multiple Listing Service provides a potential competitive edge and thus may add value to the home.
- b) However, at this point it is very difficult to assess the value of building assessments to the customer for the following reasons: 1) Currently, there is no standard assessment for customers; and 2) Assessments are required to receive an incentive under Energy Upgrade California (“EUC”) and because it is not voluntarily sought, it is difficult to determine which customers find value in the assessments beyond the practical matter of using it to qualify for an incentive.
- c) At this time, their role in the upgrade programs should only be for the Advanced path projects.

What is the role of rebates in efficiency upgrade programs? How can financial products/financing strategies motivate deeper retrofits in lieu of rebates? Are both needed to motivate deeper retrofits?

- a) Response: Rebates in energy efficiency upgrade programs help boost program participation. For example, when SoCalGas did their summer promotion, the numbers went from zero to eighty in

one month. Rebates and attractive financial products follow a fundamental law of economics by moving a proportion of consumers to act where they may not otherwise have by making the value proposition more attractive by lowering the costs of the perceived benefits. Higher rebates or more attractive financial products allow a greater proportion of the population to perceive the benefits as having a higher value proposition and thus will act upon these presented opportunities.

- b) Financial products with attractive interest rates help motivate customers to participate and help contractors in the sales of whole home projects. However, if financial incentives are too attractive, it can potentially “poison the waters” for medium and long term uptake unless such incentives are sustainable in the long term. Consumers will be unwilling to act if there is an expectation that it should be free or cost neutral in order to meet the value proposition. For most customers who perform comprehensive retrofits, the value proposition already lies outside the realm of economic benefits.
- c) Yes both are needed to motivate deeper retrofits.

How can “reactive” interaction with customers (e.g., HVAC tune-ups or water heater replacements) best be leveraged to encourage whole house upgrades? How can such customer interaction encourage or enable future upgrades?

Response:

Currently we have an emergency replacement process for HVAC and Hot Water heaters in order to give the customer and contractor an opportunity to participate in EUC. These trigger points can best be leveraged by providing increased market awareness of whole house performance concepts and the opportunities associated with these trigger points to various stakeholders including contractors, suppliers, raters, IOU's, and customers. This customer interaction offers IHACI/HVAC contractors the opportunity to participate in our programs.

What milestones and metrics are most appropriate for measuring success of programs to motivate upgrade activity? Against what criteria or guiding principles should potential AB 758 program initiatives be assessed and prioritized?

Response:

- a) The milestones and metrics most appropriate for measuring the success of programs include: 1.) A metric measuring participation of upgrade activity. For example, tracking the number of assessments completed compared to the number that turn into Whole House Projects (i.e. the number of permits pulled vs. projects done); and/or 2.) A home rating system that is fully embraced and accepted by all market actors in the residential home industry, supporting industries and homeowners. Such a system allows the market to set a value to home energy efficiency, a residential home stock baseline and track residential home stock changes.
- b) The criteria from AB758 that could be assessed include cost effectiveness, market transformation effects, program design effectiveness.

How can quality assurance be provided without excessive impact on the customer experience?

Response:

The establishment of statewide quality assurance standards would be an appropriate approach to providing quality assurance that does not have an excessive impact on the customer's experience and minimizes the number of visits to a customer's home. Currently, the utilities follow the Home Performance w/ENERGY STAR guidelines with their tiered approach to inspections after a contractor meets program requirements. In the long term, this is when the industry can provide its own quality assurance. For the short and medium term, this would entail that the multiple actors requiring quality assurance set an agreed upon standard and consolidate inspections.

How can Marketing, Education & Outreach efforts leverage and coordinate with other efficiency programs, implementers and regions?

Response:

ME&O would be most effective if communication focused on whole house concepts and ratings while leveraging other programs as a means to whole house efficiency that can be quantified through home ratings. In addition, IDSM ME&O could leverage all rebates including solar, energy efficiency, IOU, Government and regional rebates and incentives.

What workforce development is desirable for the residential sector?

Response:

WE&T will have link to the portal for all training opportunities such as Building Science, weatherization, and safety.

In the short term, development of the existing workforce that is already working on existing housing stock is the most cost effective strategy. This would require focusing on businesses that already provide similar services such as HVAC contractors. In the long term, the most desirable workforce development should be offering these training services to contractors at their own cost because there are clear standards to be met before they can do these jobs which then create value that they are willing to pay for.

The residential sector would benefit from a clearer understanding and increased outreach on licensing, certification requirements for participation in the Residential EUC programs, coupled with supportive training pathways for attracting and increasing participation from contractors in, or willing to service, EUC underserved residential communities.

Residential Ratings

Under what conditions would it be appropriate to include an energy rating in an upgrade project?

Response:

It would be appropriate to include an energy rating in an upgrade project if the customer chooses to pay for this option or if it is enforceable by law to require a customer to have one.

At what other points in the life of a building would an energy rating be desirable?

Response:

An energy rating would be desirable during the following points in the life of a building: during the initial building stage; a resale situation; during a leased opportunity or a financial process such as a loan or insurance requirement; or as a condition of certain building requirements (i.e. remodeling, addition, or major system replacement).

What market barriers exist that limit the growth of the voluntary market for HERS ratings and assessments? Is there a role for ratepayer or public funding to overcome these barriers, if so, what level is appropriate and commensurate to benefits?

Response:

The market barriers that limit the growth of the voluntary market for HERS ratings and assessments include the cost to customers and contractors. There is also a lack of awareness of the ratings and what their value means to the residential market; consequently, this lack of awareness and uptake in HERS ratings has contributed to the high costs of HERS ratings. In order to overcome these barriers, ratepayer or other public funding could partially cover the cost of the HERS rating for the customer and/ or pay for training to be a HERS II rater.

Is there a role for HERS providers and HERS raters in the whole house upgrade programs offered by utility providers or in financing offerings supported by public dollars?

Response:

Yes, we are currently creating this option. HERS raters have the expertise to not only offer ratings, but to perform whole house assessments for the purpose of participating in whole house upgrade programs.

What improvements could be made to the California HERS program and its use in utility whole house upgrade programs?

Response:

The California HERS program and its use in utility whole house upgrade programs could be improved by allowing HERS II Raters to provide a scope of work that the customers can send out to different contractors for bids. Additionally, the HERS program should have an option for customers to receive a HERS score from a HERS rater without the score being submitted to the registry and HERS should not be a requirement to participate in utility programs.

Energy Upgrades for Multifamily/Low-income

How do we address low-income consumers in whole building programs?

Response:

The Energy Efficiency Programs have some coordination with the Energy Savings Assistance Program (“ESAP”). The inclusion of the Middle Income Direct Install (“MIDI”) and Multifamily Programs will also help augment this effort as well as the IOUs’ continuous efforts of aligning their Low Income and other statewide weatherization programs to avoid duplicative services.

How can low- to moderate-income consumers gain access to deeper upgrade projects?

Response:

By coordinating ESAP, MIDI and Multifamily whole house with a single point of contact, low-to-moderate-income consumers can benefit from deeper energy upgrades. This segment of the population is more likely to own homes that are in need of energy upgrades and may often compete for scarce resources with other home maintenance needs. Attractive financing options that enable homeowners to receive low cost financing for projects that have both energy efficiency and non-energy efficiency components would also support this segment gain access to deeper upgrade projects.

How can whole building programs be meshed with existing low-income programs? What barriers would need to be overcome? How can the fact that multifamily buildings have a mix of tenants that qualify for low-income assistance and tenants that do not qualify, be addressed so that whole building upgrades are feasible?

Response:

- a) Whole building programs can be meshed with existing low income programs through further coordination to guarantee that low income and other energy efficiency programs have a single point of contact. The primary barriers that would need to be overcome include split incentives, owners business decision, and tenant scheduling.
- b) For multifamily buildings with a mix of tenants, one way to ensure that whole building upgrades are feasible would be to serve the low income tenant with unit-based measures prior to setting a building baseline and upgrading the building. By following a program loading order (ESAP, MIDI, other, WHUP and MFEER) a single property including the property owner and the various tenants could take advantage and would benefit from improved efficiencies to the property.

What are effective strategies for overcoming the split-incentive barrier, such as when building owners pay for the energy efficiency improvements but the benefits accrue to the renters?

Response:

An effective strategy for overcoming the split-incentive barrier would include coordination of all available programs that benefit dwelling and common areas alike. By first targeting the dwellings and providing any no cost services, the overall expense for the upgrades to the property owner is reduced. The split incentive barrier for multifamily properties could be addressed by assigning building performance ratings to multifamily buildings so that the market could assign value that can be capitalized by building owners at the time of sale or to prospective tenants as a value added feature.

What lessons learned from the San Diego multifamily whole building pilot should be extended into a statewide program? What issues need to be addressed?

Response:

The primary facet that should be extended into a statewide program should be to use a single point of contact for all multifamily programs and integration of Low Income Programs.

Residential/Nonresidential Data and Information Decision Support Initiatives

What can be learned from the California Solar Initiative (CSI) online database experience that can be extended to energy efficiency upgrades?

Response:

It would be very difficult to extend the CSI database experience to energy efficiency upgrades because the building stock variance and complexity of projects can vary significantly with upgrade projects, and have far more variables compared to CSI projects which are far simpler.

What are the major barriers to accomplishing comprehensive data collection and centralized public access to market data?

Response:

Barriers to accomplishing comprehensive data collection are directly related to having a system to collect building data and designating a responsible party for collecting that data. Centralized public access is a matter that still needs to be addressed.

What safeguards exist for protecting consumer information while still allowing access to data?

Response:

There are safeguards in place to protect consumer information while still allowing access to data. There are authorization to release customer data forms that all IOUs currently use, but access must be authorized by the customer of record; thus ensuring that certain fields are not accessible except from a data entry stand point and through heavy testing to ensure the system is not easily hacked by the experienced hackers.

What options exist to collect pertinent energy savings and market characterization data without collecting personal and business sensitive data?

Response:

For the IOUs, the various EM&V studies particularly those managed by Energy Division have collected much of this data. A study should be undertaken to determine how this data can be aggregated to a composite level that protects the confidentiality customer and their data property, including identifying “useful sufficient” statistics or investigating data mining techniques to remove the necessity of collecting personal and business sensitive data. Many times, evaluators want personal identification so as to be able to do follow-up research. Other current methodologies in use methodologies are aggregated metered data by NAICS code, zip codes, customer/rate classes.

What emerging initiatives hold promise to utilize smart meter data to inform decision making by homeowners/business owners/contractors/financers?

Response:

The emerging initiatives that hold promise to utilize smart meter data to inform decision making by homeowners/business owners/contractors/financers include Whole Building M&V and development of more sophisticated online audit tools that utilize detailed data and can disaggregate end use information to identify more customized recommendations.

Nonresidential Building Energy Performance Tools

How can energy performance tools be used successfully in the multitude of commercial business markets in the state? Can these tools be cost-effectively deployed in small and medium buildings?

Response:

- a) Energy performance tools can be used successfully if they are standardized and made available to all commercial business markets at a low or no cost.
- b) Yes, these tools can be cost-effectively deployed in small and medium buildings. It would be advantageous to allow a ratepayer funded program to fund their development and maintenance to ensure accuracy, simplicity, and accessibility.
- c)

What is the proper role of public and ratepayer funded programs to increase the access to, and penetration of, energy performance tools for commercial buildings?

Response:

Ratepayer/taxpayer funds should only be used to the extent that all ratepayers/taxpayers have equal access to the benefits that can be derived from implementation of the tools. Tools need to be able to provide ratepayers/taxpayers with comparative information needed to motivate action.

Upon clearly defined methodologies, laid out and properly refined, IOUs could look into the probability of incorporating findings into the EE equation.

The role of the tools the IOUs are rolling out to provide to their customers at no charge. GREEN BUTTON, to obtain consumption data for both sides.

It is a proper use of funds as a “Transformational” process to make the customers learn the value.

(Much akin to “Flex Your Power” alerts) The program needs certain basic standards that can be adopted by contractors. CA should define minimum requirements. Then tool builders can do so, but to the basic mandates selected.

Is it appropriate to require performance ratings for all commercial buildings sometime in the future?

Response:

Yes, it is appropriate to require performance ratings for all commercial buildings sometime in the future as long as the costs are equally shared by all building owners and tenants, not just those paying the energy bill.

Should building performance ratings be publicly disclosed?

Response:

Building performance ratings should not be publicly disclosed by the utilities. Generally speaking, they should only be disclosed in limited instances and only to the extent that there can be no negative impacts to the existing customer. Perhaps upon the sale or transfer of a building; it cannot jeopardize customer confidentiality and an IOU should not release data, it should be left to the customer’s discretion whether or not they want to release data.

Is it appropriate to require monitoring equipment in certain types and/or sizes of commercial buildings to improve the persistence of public and ratepayer funded efficiency improvements?

Response:

Before additional monitoring equipment requirements are determined, we recommend investigating the data that can be derived from smart meters so that we derive the optimum benefits from this infrastructure.

Nonresidential Building Upgrade Programs

How can whole building upgrade programs be encouraged in the commercial sector? Should advanced upgrades for specific equipment (e.g., advanced lighting or HVAC controls) be considered “whole building?” What should the criteria be for considering a program “whole building?”

Response:

Whole building upgrade programs can be encouraged in the commercial sector through increased incentives for customers who perform true whole building upgrades to make the investments attractive to customers, something similar to what is being done in EUC. Set standards as to number of end uses that must be included or base it on the results of an audit and a % of measures/end uses that must be implemented within x number of months of the completion of the audit.

Given the diversity of commercial businesses and buildings, which energy saving strategies, tools and implementation approaches can be applied across the diversity? What are the conditions that will necessitate unique program elements to improve the efficiency of specific sectors of the nonresidential building market?

Response:

- a) The loading order should be consistent across the various sectors. It would be prudent to develop an incentive structure that will drive “market transformation” and ensure that attractive and affordable financing options are available for building owners. This strategy coupled with the notion of requiring building ratings during the sale/leasing of buildings could encourage owners to upgrade their buildings.
- b) Smaller buildings (SMBs) would require a different workforce than other building sectors such as high rises. Tenant versus privately owned facilities may require longer range plans for implementation as tenants move out to account for and build into the lease agreement.

What workforce development is needed to meet the efficiency goals in commercial buildings? How can workforce development be better integrated with the delivery of energy efficiency upgrades?

Response:

- a) In order to meet energy efficiency in commercial buildings, it would be beneficial to include workforce development that offers building performance certification and addresses loading order concepts. Given the diversified management approaches and operating functions among commercial building types, providing separate training curriculum for specific commercial building types would be advisable. This approach could create workforce opportunities for energy efficiency work on small type building inventories, while offering different and targeted training to operation staffs for large commercial building operators/owners.
- b) By establishing codes that require building upgrades upon the transfer/re-leasing of buildings, there may present an opportunity for the development of a workforce. Although it is not necessarily a workforce issue but rather an educational issue for building owners, owners need to be more aware of the importance of having highly efficient building and leasing to energy conscious tenants.
- c) Energy efficiency programs focus on comprehensive, multiple-measure retrofits in order to meet savings goals. The existing training curricula can be leveraged to meet workforce training needs as programs transition to adhere to this strategy. For instance, existing benchmarking, energy assessment, and financial analysis courses can be bundled in order to give workforce

professionals the set of skills necessary to evaluate energy saving opportunities at the whole building level. As workforce professionals undertake training and become proficient in delivering comprehensive, multiple-measure energy retrofits, programs can share this information with customers, providing a stronger linkage between workforce training and program participation.

What barriers are there to achieving upgrades in small commercial buildings (less than 5,000 square feet)? What strategies exist for overcoming the split-incentive barrier in small commercial buildings, such as when building owners pay for the energy efficiency improvements but the benefits accrue to the tenants? What community or business organizations can serve as partners for overcoming the barriers in achieving upgrades for small commercial buildings?

Response:

- a) Some of the barriers are: Lack of capital; Customers lack of understanding; with the abundance of retail space, adds to the /sq ft of leased building may make the building non-competitive
- d) It could become part of the lease agreement. \$ cents / sq. ft. could be added to the lease (but can also be a barrier);
- e) The following business organizations can serve as partners for overcoming the barriers in achieving upgrades for small commercial buildings: Small Business Association (SBA); Chambers of Commerce; community Based Organization (CBOs); In Language trained auditors & contractors; Community Colleges; and Training Centers.

Additional Questions:

What is the proper role for regulations to achieve energy efficiency through AB 758? What are the appropriate points in the life of buildings (trigger points) where regulations could be applied?

Response:

The proper role for regulations is to work with property assessors to develop meaningful monetary values to energy efficiency upgrades which will have positive impacts on the value of a home. This would encourage property owners to undergo energy efficiency upgrades during ownership and recuperate some added value to property at sale. Regulators could use energy efficiency as a marketing tool to differential property values in MLS listings. Currently programs are too complicated, restrictive and unknown but energy efficiency can be achieved through strong promotions of its benefits and with attractive, easy to understand and easy to access upgrade opportunities.

How could the real estate industry play a role to encourage assessments, rating and upgrades as a means of differentiating homes where owners have invested in upgrades?

Response:

The real estate industry could be educated in the benefits of EE such that as they show potential buyers a variety of homes, they are able to describe these benefits to buyers; show how the potential utility bill can be reduced for more energy efficient homes. The industry should support the usefulness of ratings that would facilitate their process of differentiating between homes. Lastly, the industry should engage in these planning discussions as they can articulate better the barriers they encounter and offer their own solutions to improve the attractiveness of more energy efficient homes.

Should non-energy benefits (NEBs) be recognized in cost-effectiveness criteria for an upgrade program, and if so, how? Are there important distinctions between ratepayer-funded and other publicly funded upgrade programs in how NEBs are addressed?

Response:

The attractiveness of non-energy benefits besides potentially improving cost effectiveness is that it is easier for most customers to understand and relate to these benefits. It is a means to overcoming some of their barriers if these NEBs can provide some comparable value to pure economic reasons. However,

NEBs should only be in formal cost effectiveness tests (for example TRC, used for approving program portfolios) if they can be measured accurately or effectively. This particular topic is currently under consideration in the CPUC proceeding R.09-11-014. Consistency in adopting these NEBs between the CEC and CPUC should be a consideration.

What process improvements or funding solutions would facilitate better compliance with the Building Energy Efficiency Standards? What actions could be taken to encourage contractors to pull permits?

Response:

The IOU's should not assume any role in the policing of permit compliance. Currently, IOU rebate programs require proof of permit to receive a rebate on measures which require a permit for replacement as part of the application process. There are several strategies that can be implemented but could potentially create a multitude of logistical issues with implementation as well. For example, distributors can be directed to require a permit number upon the sale of any measure which requires permits for installation. The State would have to create a database with a network to tie in all local jurisdictions and a state entity would have to manage the flow of information along with a portal for the input of information.

A reoccurring deterrent to code compliance seems to be the complexity of compliance forms in addition to confusion surrounding how and when to submit the forms. Simplifying the forms and clarifying the application process would have a positive impact on compliance rates. Educational outreach targeted to homeowners and contractors would be an important part of the effort to increase the practice of permitting for alterations and additions since this becomes a common expectation between the homeowner and the contractor. The education effort outreach should focus on both the benefits of pulling permits, and the legal obligation and risks of not pulling permits.

How should building energy simulation software be used to make recommendations for energy upgrades? How could actual energy use, before and after the upgrade, be considered?

Response:

- a) Building simulation software is currently used in the EUC advanced path program process; the software tool enables the contractor to develop a scope of work to help the customer achieve a desired level of energy efficiency improvements in a dwelling. However, for the C&I sector using energy simulation software a much more complicated issue. If a customer can download (via Green Button or similar applications) 2-3 yrs. of energy consumption into the simulation software, that software can then take advantage of having that data in conjunction with all other equipment data associated with the building to perform a series of *what if* scenarios. Energy simulation software should primarily be used for HERS ratings but should be aligned in those cases where it must be used as part of an energy upgrade. Where possible though, the use of complex software should be eliminated from the upgrade process as it has shown that it can be a barrier to participation.
- b) The use of smart meter data combined with analytical tools to disaggregate end use and weather-normalize consumption can be useful for providing customers with feedback as to the benefits of their EE retrofit projects. These analytical tools should be further developed and made easily available and understandable to customers, similar to how online audit tools provide them with information about their potential savings benefits. The customer should have these tools so that they can validate for themselves the savings and thus encourage them to continue to pursue deeper and longer lasting EE investments.

Should California pursue a "HERS-lite" rating option (see page 65 of AB 758 Scoping Report)? Could this be used as a screening tool? How could it be used?

Response:

The value in the creation of the HERS-lite rating tool is unknown as there are currently a number of utilized screening tools available in the market place. IOU's also provide a form of a prescreening home energy efficiency tool to their customers. We also should be cautious of offering many versions of the tool as they become confusing and lose their efficacy.

How effective are workforce training efforts to prepare building officials, experienced contractors and new workforce entrants for energy upgrade programs? What education or training gaps exist?

Response:

- a) Some of IOU EE program requirements (e.g., EUC) include mandated education and training to any contractor wishing to become a utility approved contractor to ensure proper program delivery and anticipated results. Workforce training is effective in preparing energy efficiency professionals. The 2010-2012 Workforce Education & Training Centergies Process Evaluation conducted by Opinion Dynamics Corporation and McLain ID Consulting found that the IOU training programs are "effective in meeting the needs of the target market, support class participants' on-the-job performance, and following principles and best practices for effective adult education."²
- b) Discussions with program stakeholders including employers, educational institutions, industry organizations, and CBOs, revealed that there is a training need for "soft skills" including sales, marketing, and business conduct. To meet this need, the workforce training program plans to offer in the 2013-2014 period stand-alone soft skills classes as well as an industry-recognized certification program in soft skills for energy efficiency professionals. Since enforcement has historically been a weak link in the building process, there should be a greater emphasis on providing more robust training for building officials. Additionally, there should be a clearer understanding of Residential EUC program requirements and integration with existing building codes/standards compliance to help increase support and encourage expansion.

We appreciate your review of these comments. Please do not hesitate to contact me if you have further questions.

Sincerely,



² 2010-2012 Workforce Education & Training Centergies Process Evaluation, at p. 52.